

TESARIK, I., AND OTHERS.

Formation and thickening of the sludge blanket. (To be
contd.) p. 120. Lakes in Poland. p. 123. VODNI
HOSFODARSTVI. (Ustredni sprava vodniho hospodarstvi)
Praha. No. 5, 1954.

SOURCE: East European Accessions List, (EEAL).
Library of Congress. Vol. 5; no. 12,
December 1956.

TESARIK, L. and others

Formation and thickening of the sludge blanket. (To be contd.) p. 102.
VODNI HOSPODARSTVI. (Ustredni sprava vodniho hospodarstvi) Praha,
No. 2, Feb. 1956.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

GDR/Chemical Technology. Chemical Products and Their Application.
Water Treatment. Sewage.

H-5

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5129.

Author : Mackrle, Svatopluk; Tesarik, Igor; Mackrle, Vladimir;
Mican, Vladimir.

Inst Title : Results of Experiments Carried out at Experimental Pilot-
Plant Clarifier with Suspended Layer.

Orig Pub: Wasserwirtsch.-Wassertechn., 1957, 7, No 11, 428-431.

Abstract: The study of the process of water clarification was made
at an experimental clarifier consisting of following
items: a reaction chamber situated in the upper central
part of the clarifier and containing a flocculation cham-
ber in it; a mechanical stirrer with controllable rota-
tion number; pumps feeding slime from the slime settler
into the flocculation chamber and into the zone of the

Card : 1/4

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GDR/Chemical Technology. Chemical Products and Their Application.
Water Treatment. Sewage.

H-5

Abs Jour: Ref Zhur-Khim., No 2, 1959, 51.29.

suspended precipitate layer (SPL); an arrangement for water supply and discharge. The maximum cross-section of the clarifier is 0.671 sq.m. The dosing of coagulators was carried out with a diaphragm pump. It was established that at velocities from 1.2 to 2 mm per sec, the height of the SPL was constant, the slime concentration being about 300 mg per liter, and only separate flocs being found above the slime layer. When the velocity was reduced to 0.7 mm per sec or less, the slime particles sank accumulating in the lower part of the apparatus, and the result of clarification deteriorated. When the velocity of water was increased above 2.5 mm per sec, the flocs broke and were carried out into the zone of clarified water. In order to produce the SPL when the

Card : 2/4

GDR/Chemical Technology. Chemical Products and Their Application.
Water Treatment. Sewage.

H-5

Abs Jour: Ref Zhur-Khin., No 2, 1959, 5129.

clarifier was put into comission, the slime was fed from the slime settler into the SPL zone through a pipe radially connected to the apparatus. On this occasion, the stream of slime reached the wall of the cylindrical inside part of the apparatus, was split and produced finely dispersed slime particles. The SPL was produced in less than 15 min. The described method of preparing the SPL can be recommended for industrial clarifiers. Experiments carried out with a disengaged stirrer and with a reduced duration of the presence of water in the reaction and flocculation chambers showed that the flocculation processes taking place before water entered the SPL zone practically did not influence the work of the clarifier. It is recommended to discontinue the use of mechanical stirring in clarifiers

Card : 3/4

GDR/Chemical Technology. Chemical Products and Their Application.
Water Treatment. Sewage.

H-5

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5129.

and to decrease the volumes of the reaction and flocculation chambers. - N. Subbotina.

Card : 4/4

Turbulent flow through fluidized beds or id
írok Tesařík, *Rozpravy Československé akad. věd.*
60, No. 3, 79 pp. (1956) (English summary)
was undertaken to explain the mech. process
fluidized bed process, called the sludge
phenomenon of fluidization was investigated
bed composed of spheres of the same d., of a

diam. >0.1 mm. The problem of fluidization was solved by
means of dimensional analysis. A kinematic and dynamic
analysis of the problem was conducted. The following
units of application of the method were used: drag
coeff. f and Reynolds no. The equation was obtained
for the fluidized systems composed of spheres ranging
diam. from 0.051 to 0.621 cm. and ds. from
 $\mu/\text{cc.}$; $f = C R_e^{-1/4}$, where the const. C
depends on the phys. properties of the spheres. This
equation can be simplified by the use of f_s , the drag coeff. of a single sphere
settling in a liquid of infinite extent and K_{α} , the Reynolds

number.

Rida tech. vzd.

This study
is occurring in a
blanket. The
with liquids in
uniform size, and

Chemical

TESARIK, I.

Raising clouds of grain and flake particles in water, p, 3.

ROZPRAVY, RADA TECHNICKYCH VED. Praha, Czechoslovakia. Vol. 69. No. 3. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 10,
Oct. 1959.
Uncl.

CZECHOSLOVAKIA/General Problems of Pathology. Tumors

U-4

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 66031

Author : Kosek M., Kaderabek F., Tesarik J., Koskova D.

Inst : -

Title : On the Inhibitory Factor in Serum of Patients with Cancer.
Differences in Saponin Hemolysis Between Normals and
Patients with Malignant Tumors.

Orig Pub : Casop. lekaru ceskych, 1956, 95, No 30, 810-816

Abstract : Serum from patients with malignant tumors suppressed the
hemolysis induced by adding saponin to the blood in 86.65
percent of cases. The serum of healthy people suppressed
hemolysis only in 15 percent of cases. This test may be
used in the diagnosis of cancer. -- V.M. Shapiro.

Card : 1/1

TESARIK, Jan.

Fibrous dysplasia of the facial bone. Cesk. otolar 8 no.2:102-104 Apr 59.

1. ORL klinika PU v Olomouci, prednosta prof. Dr. Fr. Ledl.
(OSTEITIS FIBROSA, case reports,
facial (Cz))
(FACIAL BONES, dis.
osteitis fibrosa (Cz))

TESARIK, J.

Water supply in the Netherlands. p. 563.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a nodniho hospodarstvi a
Vedecka technica spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia,
No. 12, Dec. 1959.

Monthly List of East European Accession (EEAI), LC Vol. 9, no. 2,
Feb. 1960

Uncl.

TESARIK, Jan (O.R.L. klinika, Olomouc)

Myxoma of the paranasal sinuses. Cesk. otolar. 8 no.1:29-31 Feb 59.

1. O.R.L. klinika PÚ v Olomouci, prednosta prof. dr. Fr. Lešil.

(MYXOMA,

paranasal sinuses (Cz))

(PARANASAL SINUSES, neoplasms

myxoma (Cz))

HERODEK, F.; TESARIK, J.; BAYER, A.

Primary melanoblastoma of the nasopharynx. Typical findings,
review and evaluation of literary data. Cas. lek. cesk. 103
no.18:497-500 3 My'64

1. Otolaryngologicka klinika lekarske fakulty PU [Palackeho
university] v Olomouci (prednosta: prof. dr. J. Chvojka) a
Ustav patologicke anatomie lekarske fakulty PU [Palackeho
university] v Olomouci (prednosta: doc. dr. V. Valach).

TESARIK, Jan, MUDr.

Injury of otorhinolaryngological organs by suicides. Cesk.
otolar. 6 no.1:56-58 Feb 57.

1. ORL klinika PU v Olomouci, prednosta prof. MUDr. Fr. Ledl.
(OTORHINOLARYNGOLOGICAL DISEASES
inj. of otorhinolaryngol. organs by suicides (Cz))
(SUICIDE
same)

EXCERPTA MEDICA Sec. II Vol. 10/11 Oto-Rhino-Laryngo Nov 57
TESARIK J.

2039. TESARIK J. O.R.L. Klin. PU, Olomouc. *Carbaphen v otorinolaryngologii.
Carbaphen in otorhinolaryngology CSL. OTOLARYNG. 1957,
6/2 (125-128)

The author tried phenylsemicarbaside-cryogenin-carbaphen in several ENT diseases, mainly of viral aetiology. Good results were obtained in bullous haemorrhagic middle ear inflammation - 78.9% recovery, shortened treatment time. It is also of advantage in patients with acute catarrhal laryngitis and acute subglottal laryngotracheitis, where carbaphen decreased the infiltration along with a paling of the mucous membrane and a vocal improvement. In children with acute laryngotracheitis it was administered simultaneously with antibiotics. The author recommends the powerful and lasting antipyretic effect of this drug, along with its analgesic properties. The development of subacute eczema was observed as a complication of treatment.

KOSEK, Miroslav, MUDr.; KADERABEK, Frant., MUDr.; TESARIK, Jiri;
KOSKOVA, Dagmar

Inhibitory factor in blood serum in carcinomatous subjects;
variations in hemolysis by saponin in normal and carcinomatous
subjects. Cas. lek. cesk. 95 no.30:810-816 20 July 56.

1. Interni oddeleni OUNZ - nemocnice v Pribrami, prednosta
MUDr. Frantisek Kaderabek.
(HEMOLYSIS,
by saponin in normal & carcinomatous subjects (Cz))
(SAPONINS, effects,
hemolysis in normal & carcinomatous subjects (Cz))
(NEOPLASMS, blood in,
hemolysis by saponins, comparison with normal blood (Cz))

TESARIK, K.; Janak, J.

Automation of the measuring of volume by the gas chromatograph. Tr. from
the Czech. p. 349.

CHEMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelnan
Organizacja Techniczna) Warszawa, Poland, Vol. 3, no. 3/4 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959
Uncl.

COUNTRY	:	POLAND
CATEGORY	:	Laboratory Equipment. Apparatus, Their Theory, Construction and Application
ABS. JOUR.	:	RZKhim., No. 1 1960, No. 1020
AUTHOR	:	Janak, J.; <u>Tesarik, K.</u>
INST.	:	-
TITLE	:	Automatization of the Gas Chromatograph for Volumetric Measurements
ORIG. PUB.	:	Chem. analit., 1958, 3, No 3-4, 349-356
ABSTRACT	:	The structure of an automatic gas detector for the gas chromatograph is described. Its sensitive element is a contact manometer which re- cords the change in pressure in an azotometer upon the inflow of successive fractions from the column. When the pressure changes, the relay contacts close (through an intermediate amplifier), which brings the motor into motion and equalizes the pressure in the manometer

CARD: 1/2

COUNTRY :
CATEGORY :

F

ABS. JOUR. : RZKhim., No. 1 1960, No. 1020

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT cont'd : with the pressure in the azotometer, whereupon the contact opens. Simultaneously with closing of the relay, the autorecording pen is brought into motion, which draws a stepped performance curve; the position and the height of the step correspondingly characterize the type and quantity of this component. A sample of 2 ml can be measured correct to 4%, and with 5 ml the error is $\leq 0.25\%$.-- L. Dimitrenko

CARD: 2/2

F-20

COUNTRY	:	CZECHOSLOVAKIA	F
CATEGORY	:	Laboratory Equipment. Apparatus, Their Theory, Construction and Application	
ABS. JOUR.	:	RZhKhim., No. 1 1960, No.1017	
AUTHOR	:	Janak, J.; Tesarik, K.	
INST.	:	-	
TITLE	:	Chromatographic Semimicroanalysis of Gases. XV. Automatization of the Measuring Part of the Gas Chromatograph	
ORIG. PUB.	:	Collect. Czechosl. Chem. Commun., 1959, 24, No 2, 536-544	
ABSTRACT	:	No abstract See RZhKhim., No 24, 1958, No 81418.	

CARD: 1/1

F-19

✓ Automation of gas chromatography for volume measurement. Jaroslav Janák and Karel Tesářík (Akademie der Wissenschaften, Brno, Czech J. Z. anal. Chem. 164, 62-9 (1958).—An app. is described for automatically measuring and recording the vol. of gas fractions emerging from a gas chromatography column. The vol. is measured at const. pressure. The results are good to 0.1-0.3 vol. % when applied to C₂H₆-C₄H₁₀ mixts. and to C₂H₆ and C₄H₁₀ in C₂H₄.
K. G. Stone

4
2.7/6.4

CZECHOSLOVAKIA/Laboratory Equipment. Instrumentation.

F

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81418.

Author : Jannak J., Tesarik K.

Inst. :

Title : Chromatographic Seri-Micro Analysis of Gases
XV. Automation of Measuring Instruments of Gas
Chromatographs.

Orig Pub: Chem. listy, 1957, No 11, 2048-2054.

Abstract: An apparatus, capable of automatically recording the gas pressure increments in the gas chromatographs (nitrogen meter) is described. With the use of a contact manometer, the instrument automatically controls pressure. When pressure increases, the controller activates a piston assembly that removes the excess of gas. This piston assembly is connected

Card : 1/2

CZECHOSLOVAKIA/Laboratory Equipment. Instrumentation.

F

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81418.

to a recorder. The same technique is employed when the pressure conditions are reversed [sic]. The equipment items involved are described in details. A general diagram depicting the hook-up and practical application of the instrument are included. An average error, basis a single determination, while using a sample of 5 cc is approx. 0.25 vol%. When larger samples are used the error is decreased. For Part XIV see Ref. Zhur-Khimiya, 1958, 67335. -- K. Setinek.

Card : 2/2

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TESARIK, KAREL

Czechoslovakia / Analytical Chemistry - General Questions, G-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 618C1

Author: Janak, Jaroslav; Tesarik, Karel

Institution: None

Title: Chromatographic Semimicroanalysis of Gases. X. Determination of Small Smounts and Traces of Helium, Neon and Hydrogen in Gases

Original Periodical: Chromatograficka semimikroanalyza plynu. X. Stanoveni malych az stopovych mnozstvi helia s neonem a vodiku v plynech, Chem. lysty, 1954, 48, No 7, 1051-1057; Czech; Sb. chekhosl. khim. rabot, 1955, 20, No 2, 348-355; German; Russian resumé

Abstract: The method of determining small amounts of He + Ne and H₂ in gases is based on concentration of He, Ne and H₂ by adsorption and condensation of components of the gas on activated charcoal (grains 1.00-1.75 mm) at low temperatures (from -78° to -185°) with subsequent chromatographic analysis of the concentrate He, Ne and H₂; He + Ne are determined chromatographically after combustion of H₂

Card 1/2

Czechoslovakia/Analytical Chemistry - General Questions, G-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61801

Abstract: over CuO. It was found that with a considerable content of He in the gas it is necessary to take a small sample of the gas and conduct concentration in the region of simple adsorption; with a small content of He it is necessary to use a large volume of gas and conduct concentration in the region of maximum condensation. The method is utilized for determination of He and Ne in air and natural gases and H₂ (at concentrations of 0.1-0.001% by volume) in electrolytic oxygen, technical N₂ and Ar. Communication IX, see Referat Zhur - Khimiya, 1956, 58459.

Card 2/2

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755510002-5

Tesárik, Karel

*The following research was conducted at the
Institute of Chemical Technology in Prague.
Jaroslav Janáček, Ph.D., supervised
the work.
S2 1990/4 - An investigation was made
of the effect of various factors on the
sorption of the carrying gas (CO_2) in alkali.
Mr. Hudlický*

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755510002-5"

GZE CII

11161 Chromatographic Small-Micronalysa of Gases. Khromatograficheskij poljumikroanaliz gazov. VIII. Analiza of Dissolved Gases. Analiza roztvorennykh gazov. IX. The Determination of Nitrous Oxide. Die Bestimmung von Stickoxydul. X. Determination of Small Quantities and Traces of Helium. Together With Neon, and of Hydrogen to Gases. Die Bestimrung kleiner Mengen Lwa Spuren von Helium mit Neon und von Wasserstoff in Gasen. (Russian and German.) I. Janak, I. Peralova, M. Rusek, and M. Jesatik. Collection of Czechoslovak Chemical Communications, v. 20, no. 2, Apr. 1955, p. 346-355.

Includes diagrams, tables, graphs. 41 ref.

TESARIKOVA, L.; SUDA, M.; RICNY, D.; RUZIK VA, H.; KUBES, V.; JURKO, A.;
GREGR, V.; BOUCHALOVA, M.

Reactivity of children with rheumatic fever during the course
of the year. Fysiat. vestn. 43 no.2:83-91 Mr '65

1. II. detska klinika (prednosta - prof. dr. M. Toman), katedra
zdravotnictvi (vedouci - prof. dr. A. Zacek) lekarske fakulty
University J. E. Purkyne v Brne; Detske lecby pro reumatiky a
kardiaky v Hludove, Podebrad ch, Sliaci a Teplice n.b.
(vedouci - MUDr. V. Kubes, MUDr. V. Gregr; MUDr. J. Kozacek a
MUDr. L. Tesarikova).

BURIAN, V.; DUBEN J.; KASOVA, J.; KNITLIOVA, O.; TISARIKOVA, M.; VOJTOVA, H.,
ZIMMUNDOVA, V.

Experiences with viral diagnosis of poliomyelitis in microbiological
laboratories of hygienic and epidemiological stations. Cesk. epidem.
nikrob. imun 8 no.2:90-102 Mar 59.

1. Krajska hygienicko-epidemiologicka stanice v Ceskych Budejovicich,
Jihlave, Liberce a Olomouci Okrasni hygienicko-epidemiologicka stanice
v Havlickova Brod. V.B. Liberec, Baarova 526.
(POLIOMYEITIS, diag.
viral laboratory diag. (Cz))

LEWIT, Karel; TESAROVA, Alena

Role of manipulation therapy in faulty and scoliotic postures in
children (with special reference to sacro-iliac subluxation).
Cesk. pediat. 16 no.11:990-998 N '61.

1. Neurologicka klinika hygienicka fakulty KU v Praze 10, prednosta
doc. Z.Macek Detska chirurgicka klinika, pediatricke fakulty KU,
prednosta prof. V.Kalka.
(SCOLIOSIS in inf & child) (POSTURE in inf & child)
(SACROILIAC JOINT fract & disloc)

TESAROVA, M.

What the tasks of technical workshop libraries are. p. 95.
ZELEZNICE. Vol. 4, no. 4, Apr. 1954. Prague.

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 5, No. 6, June 1956. Uncl.

MATSKERLE, S., (Brno); MATSKERLE, V., (Brno); MICHAN, V., (Brno);
TESARZHIK, J., (Brno).

Investigation of a clarification tank having a suspended
sediment layer done by the laboratory of water economy
of the Czechoslovak Academy of Sciences. Vod. i san. tekhn.
no.8:36-39 Ag '56. (MLRA 9:10)

(Czechoslovakia--Water--Purification)

TESCHLER, E.

"While Constructing Industrial Plants We Have Not Forgotten Man", P. 12,
(TECHNICKE NOVINY, Vol. 2, No. 8, Apr. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

TESCHLER, E.

We create conditions for a higher level of housing. p. 12. (Technicke Noviny, Praha,
Vol. 2, No. 23, Dec. 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955. Uncl

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755510002-5

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755510002-5"

TESCHLER, F.

Egypt and Sudan through a spinner's eyes. P. 153
MAGYAR TEXTILECHNIKA Budapest No. 4, Apr. 1956

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

TESCHLER L. BORSODMEGYEI ERZEBET KOZKORHAZBOL. A cisternal es lumbalis liquor bacillaris
leletel meningitis tuberculosaban Bacteriological findings in the CSF in tuberculous
meningitis Orvosi Hetilap, Budapest 1950, 91/1(31932)

A case report. The cisternal and spinal fluids differed in protein content and cell
count. In the cisternal fluid tubercle bacilli were found.

Fono - Budapest (IX,8)

Sc: Neurology & Psychiatry Section VIII, Vol. 3, No. 7-12

TESELKIN, P.I.

Head lever motion on cam-controlled shedding mechanisms. Izv.
vys.ucheb.zav.; tekhn.tekst.prom. no.1:115-126 '59.
(MIRA 12:6)

1. Kostromskoy tekstil'nyy institut.
(Looms)

TESELKIN, P. I.

TESELKIN, P. I. "The Effect of Reformation of the Links of a Jaw-Shaped Mechanism on the Movement of Healds." Min Higher Education USSR. Moscow Textile Inst. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

TESEL'KO, I.T., inzh.; LIFEROV, I.I., inzh.

Introducing automatic processes in gravel plants. Mekh. stroi. 17
no.12:8-11 D '60. (MIRA 13:12)
(Sand and gravel plants) (Automation)

TESER, A.

Thin-walled welded constructions.

P. 187 (Zvaracsky Sbornik) Vol. 6, No. 2, 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

TESHABAYEV, A.; AVAKYANTS, G.M.

Calculating the average energy and mobility of charge
carriers in semiconductors in the presence of strong electric
and magnetic fields. Izv.AM Uz.SSR. Ser.fiz.-mat. nauk
(NIREA 13:6)
no.1:80-82 '60.

1. Fiziko-tehnicheskiy institut AM UzSSR, Sredneasiatskiy
gosuniversitet imeni V.I. Lenina.
(Semiconductors)

24,7700

68588

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24(3)

S/166/60/000/01/010/011

AUTHORS: Teshabayev, A., and Avak'yants, G.M.TITLE: The Calculation of the Mean Energy and the Drift Mobility of the Carrier in Semiconductors for the Presence of Strong Electrical and Magnetic FieldsPERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1960, Nr 1, pp 80-83 (USSR)

ABSTRACT: The authors use the older general results of B.I.Davydov [Ref 1] and I.M.Shmushkevich [Ref 2] on the properties of semiconductors in strong fields in order to calculate in some special cases the distribution function of the electrons, the mean energy, and the drift mobility. Let l be the free length of path of the carrier, let p be its impulse, and let m be its effective mass. The authors introduce the dimensionless variable $x = \frac{p^2}{2mkT}$ and they consider the following cases: 1) $l=l_0$, 2) $l=l_1x^{1/2}$, 3) $l=l_2x$. There are 3 Soviet references.

ASSOCIATION: Fiziko tekhnicheskiy institut AN Uz SSR; Sredneaziatskiy gosuniversitet imeni V.I.Lenina (Physical Technical Institute AS Uz SSR; Central Asiatic State University imeni V.I.Lenin)

SUBMITTED: JULY 10, 1959

Card #1/1

TESHABAYEV, A.

Hall effect in semiconductors and in arbitrarily directed magnetic field. Izv. AN Uz. SSR Ser.fiz-mat. nauk no.6:63-67 '60.
(MIRA 14:3)

1. Tashkentskiy gosuniversitet im. V. I. Lenina.
(Hall effect) (Magnetic fields) (Semiconductors)

AVAK'YANTS, G.M.; MURGIN, V.I.; SANDLER, L.S.; TESHABAYEV, A.;
YUROVSKIY, A.V.

Straight branch of the voltampere characteristic of thin
diodes at high injection levels. Radiotekh. i elektron. 8
no.11:1919-1926 N '63. (MIRA 17:1)

AVAK'YANTS, G.M.; MURYGIN, V.I.; SANDLER, L.S.; TESHABAYEV, A.; YUROVSKIY, A.V.

Properties of an electron-hole junction in the straight-line
direction at large current densities. Radiotekh. i elektron. 8
no.10:1776-1782 O '63. (MIRA 16:10)

AVAK'YANTS, G.M.; ATAKULOV, B.; MURGIN, V.I.; OZHEREDOV, A.D.;
TESHABAYEV, A.

Active and reactive current component in a nonsymmetrical p-n
junction at high injection levels. Radiotekh. i elektron. 8
no.9:1594-1601 S '63. (MIRA 16:9)

1. Tashkentskiy gosudarstvennyy universitet im. V.I.Lenina.
(Transistors) (Semiconductors)

TESHABAYEV, A.

The active and reactive current components running through a nonsymmetric p-n junction at high injection levels. Isv. AN Uz.SSR. Ser. fiz.-mat. nauk 7 no.1:56-61 '63.
(MIRA 16:4)

1. Tashkentskiy gosudarstvennyy universitet imeni V. I. Lenina.

(Junction transistors)

L 10265-61

ACCESSION NR: AF3000564

S/0109/63/008/005/0821/0829

AUTHOR: Avak'yants, G. M.; Mur'ygin, V. I.; Teshabayev, A.

44

TITLE: Some properties of diodes having a large ratio of the base length to the diffusion length of minority carriers

SOURCE: Radiotekhnika i elektronika, v. 8, no. 5, 1963, 821-829

TOPIC TAGS: "long" semiconductor diodes

ABSTRACT: A generalized theory of "long" semiconductor diodes is offered which considers the flow of carriers in the current electric field of the base. Formulas for calculating static and dynamic current-voltage characteristics are developed. Inductive reactance of the "long" diode is investigated. Quasineutrality in the base and a weak a-c signal are assumed. Orig. art. has: 57 equations.

ASSOCIATION: Tashkent'skiy gosudarstvennyy universitet im. V. I. Lenina (Tashkent State University)

SUBMITTED: 21May62

DATE ACQD: 30May63

ENCL: 00

SUB CODE: 00

NO REF Sov: 003

Card 1/1 Ja/nh

OTHER: 002

TESHABAYEV, A.

Properties of an electron-hole junction in the forward biased direction at high current densities. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 7 no.1:62-68 '63. (MIRA 16:4)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.

(Junction transistors)

L 11149-63

EDS

ACCESSION NR: AT3002982

S/2927/62/000/000/0065/0076

AUTHOR: Avak'yants, G. M.; Mur'ygin, V. I.; Teshabayev, A.

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TITLE: Some properties of diodes with a high ratio of base length to the diffusion length of minority carriers [Report at the All-Union Conference on Semiconductor Devices, Tashkent, 2-7 October, 1961]

SOURCE: Elektronno-dy*rochny*ye perekhody* v poluprovodnikakh. Tashkent, Izd-vo AN UzSSR, 1962, 65-76

TOPIC TAGS: long diode, diode current-voltage characteristic, diode reactance

ABSTRACT: Theoretical studies based on two groups of previous investigations are reported. The first group included (a) a theory of current-voltage characteristic of a diode by E. I. Rashba and K. B. Tolpy*go (ZhTF, vol 26, 1419, 1956) and (b) a theory of a p-i-n combination by M. Lampert and A. Rose (Phys. Rev. 121, 26, 1961). In both works the current was found to be proportional to the square of voltage. The second group was founded by V. I. Stafeyev (ZhTF, vol 28, 1631, 1958); the diodes were found to be very sensitive to the life of carriers, and the current was an exponential function of voltage. An attempt is made, in the article, to create a more general theory that would connect the above theories. Starting with the

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ACCESSION NR: AF3002982

fundamental set of differential equations that describe transitions of majority and minority carriers in the base region of diode, the authors solve the set with certain limitations and simplifications, and arrive at final formulas for the current-voltage characteristic and the diode reactance. Orig. art. has: 70 formulas.

ASSOCIATION: Akad. nauk SSSR(Academy of Sciences SSSR); Akad. nauk UzSSR(Academy of Sciences UzSSR); Tashkentskiy gosuniversitet im. V. I. Lenina (Tashkent State University)

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DATE ACQ: 19May63

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SUB CODE: 00

NO REF SOV: 003

OTHER: 002

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L 11133-63 EWT(d)/EWT(1)/EMG(F)/FCC(w)/EDS/SEC(b)-2 AFFTC/ASD/ESD-3 Pg-4
AT/IJP(C) S/2927/62/000/000/0049/0052
ACCESSION NR: AT 3002779

AUTHOR: Avak'yants, G. M.; Karageorgiy-Alkalayev, P. M.; Teshabayev, A.

69

66

TITLE: Theory of space charge in semiconductors
[Report at the All-Union Conference on Semiconductor Devices, Tashkent, 2-7 October,
1961]

SOURCE: Elektronno-dy*rochnyye perekhody* v poluprovodnikakh. Tashkent, Izd-vo
AN UzSSR, 1962, 49-52

TOPIC TAGS: semiconductor space charge, selenium rectifier reverse current

ABSTRACT: In solving the Poisson equation (see Enclosure 1), it has been usually assumed that Rho is either a constant or a function of x (because the impurity concentration varies with the depth of semiconductor). It has been assumed that the ionized-impurity concentration is independent of the electric field intensity within the space charge of the semiconductor. However, the latter assumption is not true when strong-field effects are considered. The article analyzes mathematically a contact between an n-type semiconductor and a metal when the type of conduction is determined by shallow-seated impurities. A formula for the space-charge density (see Enclosure 1) is analyzed for 4 particular cases. The resulting

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L 11133-63
ACCESSION NR: AT3002979

formulas are offered to explain qualitatively the reverse-current phenomena in selenium rectifiers. Orig. art. has: 18 formulas.

ASSOCIATION: Akad. nauk SSSR(Academy of Sciences SSSR); Akad. nauk UzSSR(Academy of Sciences UzSSR); Tashkentskiy gosuniversitet im. V. I. Lenina (Tashkent State University)

SUBMITTED: 00

DATE ACQ: 15 May 63

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OTHER: 000

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B178/B102

AUTHORS:

Avak'yants, G. M., Karageorgiy-Alkalayev, P. M., Teshabayev,
A.

TITLE:

Theory of space charge in semiconductors

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-
matematicheskikh nauk, no. 3, 1962, 81 - 84

TEXT: The contact between an n-type semiconductor and a metal is considered. In the expression for the space charge density $\rho(E) = N_+ + N_0 g E^n$, n is made equal to 1/2, 1, 3/2, and 2, and the solution of Poisson's equation $\frac{dE}{dx} = \frac{4\pi e}{\epsilon} \rho$ is investigated, where $\rho = \rho(x)$, x - depth in the semiconductor; N_+ - concentration of completely ionized, shallow impurities, N_0 - concentration of deep impurities ionized without a field, and g is a coefficient. It is assumed that $E(x=x_1) = 0$, where x_1 - width of the space charge zone. When $n = 1/2$, one obtains:

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Theory of space charge...

$$E(0) = - \left(\frac{6\pi e N_0 g'}{\epsilon} \right)^{1/2} |V - V_s|^{1/2} \quad (5)$$

$$X_1 = 3^{1/2} \left(\frac{\epsilon}{2\pi e N_0 g'} \right)^{1/2} |V - V_s|^{1/2} \quad (6)$$

where $E(0)$ = contact field strength; when $n = 1$:

$$E(0) = \frac{4\pi e}{\epsilon} N_0 g |V - V_s| + \frac{N_+}{N_0 g} \ln \left(1 + \frac{N_0 g}{N_+} E(0) \right), \quad (9)$$

$$X_1 = - \frac{1}{4\pi e N_0 g} \ln \left(1 + \frac{N_0 g}{N_+} E(0) \right). \quad (10)$$

and when $n = 3/2$, the effect of the field strength on the space charge density is negligible. When the Schottky model is taken into account, one obtains $E = \frac{4\pi p}{\epsilon} N_+ (x - X_1)$. When $E_f = E(x = X_f)$, one finds that

$$|E(0)| = \left(\frac{2\pi e}{\epsilon} N_0 g \right)^{1/2} \left[(V - V_s) - \frac{1}{2\pi e N_0 g} V |E_f| + \frac{|E_f|^2}{8\pi e N_+} \right]. \quad (14)$$

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B178/B102

Theory of space charge...

and when $n = 2$:

$$E(0) = - \sqrt{\frac{N_+}{N_0 g}} \sqrt{\exp\left[\frac{8\pi e}{\epsilon} N_0 g |V - V_A|\right] - 1}. \quad (15) \quad \text{and}$$

$$X_1 = \frac{\epsilon}{4\pi e N_+} \sqrt{\frac{N_+}{N_0 g}} \arccos \left\{ \exp\left[\frac{4\pi e N_0 g}{\epsilon} (V - V_A)\right] \right\} \quad (17)$$

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physicotechnical Institute of the AS UzSSR)

SUBMITTED: May 20, 1961

Card 3/3.

TESHABAYEV, A.

Some problems of the motion of electrons in high electric and magnetic fields. Izv. AN UzSSR. Ser. fiz.-mat. nauk 6 no.1:53-59 '62.
(MIRA 15:4)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
(Electrons) (Electric fields) (Magnetic fields)

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B125/B104

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AUTHOR: Teshabayev, A.

TITLE: Some problems of electron motion in a strong electric and magnetic field

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1962, 53-59

TEXT: In constant electric and magnetic fields along the x and y-axis, respectively, the equations of motion of an electron are solved, for the initial conditions $x = y = z = 0$, $\dot{x} = v_{x_0}$, $\dot{y} = v_{y_0}$, $\dot{z} = v_{z_0}$, and for $t = 0$:

$$x = -\frac{eE + m\omega v_{y_0}}{m\omega^2} (1 - \cos \omega t) + \frac{v_{x_0}}{\omega} \sin \omega t, \quad (2),$$

$$y = -\frac{v_{x_0}}{\omega} (1 - \cos \omega t) + \frac{eE + m\omega v_{y_0}}{m\omega^2} \sin \omega t - \frac{eE}{H} t, \quad (2'),$$

X

$$(2''),$$

$$z = v_{z_0} t.$$

where $\omega = (eH/mc)$. According to these solutions, the electron travels on Card 1/5

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Some problems of electron ...

a circle moving at the velocity $-cE/H$ parallel to the x-axis and having

the radius $R = (c/eH) \sqrt{2m(\varepsilon' + \beta(cE/H) + (mc^2 E^2 / 2H^2))}$ with $\varepsilon' = -eEx$
 $+ (m/2)(\dot{x}^2 + \dot{y}^2)$ and $\beta = my_0$. Therefore the electron travels in the

direction of the negative y-axis at the average velocity

$$v = \sqrt{A + B \sin \omega t - C \cos \omega t} \text{ with } A = v_0^2 + 2(cE/H)^2 + 2(cE/H)v_{y_0},$$

$B = 2(cE/H)v_{x_0}$, $C = 2(cE/H)(v_{y_0} + (cE/H))$, and in the time τ covers a distance of $l = \int_0^\tau v dt = \int_0^\tau \sqrt{A + B \sin \omega t - C \cos \omega t} dt$. As this integral is

unsolvable, two special cases are examined: (1) For the electron initially at rest: $x = l(1 - (eH^2 l / 8mc^2 E))$. The magnetic field also reduces the mean free electron path in the electric field direction. Strong magnetic fields decrease the accelerating effect of a strong electric field considerably. The term "maximum" energy applies only if the order of magnitude of the period is known. (2) If the electron at

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Some problems of electron ...

$t = 0$ moves in the electric field direction, the mean free electron path in the E direction for strong fields ($E \sim 10^2 - 10^3$ CGS units and $H \sim 10^5 - 10^6$ oe) is:

$$x = 2 \frac{eE}{mc^2} \sin^2 \frac{\omega t}{2} + \frac{eH}{mc^2} \sin \omega t \quad (11).$$

The initial velocity, even in a strong magnetic field, contributes very little to the resulting energy and is therefore negligible. Of all the mechanisms of energy transfer from the strong field to the activator system in luminescence, that of impact ionization is the most interesting. The probability that the electron may travel the path l without collisions with the lattice then is

$$p = \exp\left(-\int_0^l d\eta/\lambda(\epsilon)\right) \quad (14), \text{ where } \eta \text{ denotes the variable mean free path.}$$

If $\lambda = \lambda_0$ (λ is independent of ϵ , atomic semiconductors), the relation

$$p = \exp\left\{-\frac{4mc^2 E}{eH\lambda_0} \left(1 - \sqrt{1 - \left(\frac{H}{E}\right)^2 \frac{e}{2mc^2}}\right)\right\}. \quad (15'')$$

$$p = \exp\left\{-\frac{4mc^2 E}{eH\lambda_0} \left(1 - \sqrt{1 - \frac{eH^2 x}{2mc^2 E}}\right)\right\}. \quad (15)$$

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Some problems of electron ...

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follows from (14). If $\lambda = \lambda_1 \epsilon^{1/2}$ (ionic semiconductors),

$$p = \exp \left\{ -\frac{2\sqrt{2mc}}{\lambda_1 eH} \times \right. \\ \left. \times \arcsin \frac{\sqrt{\frac{\epsilon}{2mc^2}} \left(\frac{H}{E} \right)^2 \left(\sqrt{1 + \frac{eEx}{\epsilon}} - \sqrt{1 - \frac{eHx}{2mc^2 E}} \right)}{1 + \frac{\epsilon}{2mc^2} \left(\frac{H}{E} \right)^2} \right\}. \quad (16), \checkmark$$

and if $\lambda = \lambda_2 \epsilon$ (ionic semiconductors),

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Some problems of electron ...

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$$P = \left\{ \frac{a + \sqrt{1 - \frac{eH^2x}{2mc^2E}}}{a - \sqrt{1 - \frac{eH^2x}{2mc^2E}}} \cdot \frac{a-1}{a+1} \right\} \frac{1}{\lambda_0 e E_n} \quad (17).$$

$$a = \sqrt{1 + \frac{c}{2mc^2} \left(\frac{H}{E} \right)^2}$$

$\mathcal{E} = \bar{\mathcal{E}} + eEx$. The probabilities for other special cases are calculated in a similar manner. The present formulas are valid for both strong and weak fields. There are 3 Soviet references.

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ASSOCIATION: Tashkentskiy gosuniversitet im. V. I. Lenina (Tashkent State University imeni V. I. Lenin)

SUBMITTED: December 12, 1961

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AVAK'YANTS, G.M.; KARAGEORGIY-ALKALAYEV, P.M.; TESHABAYEV, A.

Theory of space charges in semiconductors. Izv. AN Uz. SSR.
fiz.-mat. nauk 6 no.3:81-84 '62. (MIRA 15:8)

1. Fiziko-tehnicheskiy institut AN UzSSR.
(Semiconductors) (Electric fields)

88745

9,4300 (and 1043,1155)

S/166/60/000/006/005/008
C111/C222AUTHOR: Tashabayev, A.

TITLE: Hall - Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1960, No. 6, pp. 63 - 67

TEXT: For the calculation of the Hall - effect for the case where the magnetic field is directed arbitrarily with respect to the electric field, the author uses the following equation for the electric flow the deduction of which is not given :

$$(1) \quad \vec{j}_e = -\frac{4\pi}{3m} e^2 \left\{ \vec{E} I_{3,1} + [\vec{E}, \vec{\Omega}] I_{3,2} + \vec{\Omega} (\vec{\Omega}, \vec{E}) I_{3,3} \right\} - \\ - \frac{4\pi}{3m} e^2 \left\{ \nabla S_{4,1} - [\vec{\Omega}, \nabla] S_{4,2} + \vec{\Omega} (\vec{\Omega}, \nabla) S_{4,3} \right\}. \quad \checkmark$$

Here p is the impulse, e and m are load and mass of the current carriers, \vec{E} and $\vec{\Omega}$ are the intensities of the electric and magnetic field,
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Hall - Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

∇ is the gradient, $\vec{\Omega} = \frac{e \vec{H}}{m c}$, $\tilde{\tau}$ is the free length of path, f_0 is the symmetric part of the distribution function,

$$(2) \quad I_{y,\mu} = \int_0^\infty \frac{p^y \tau^\mu f_0 dp}{1 + \tau^2 \Omega^2} ; \quad S_{y,\mu} = \int_0^\infty \frac{p^y \tau^\mu f_0 dp}{1 + \tau^2 \Omega^2}$$

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The author restricts himself to the case of the isothermal Hall - effect, i.e. for $\nabla T = 0$, $j_y = j_z = 0$, but $H \neq 0$, $j_x \neq 0$, there appear E_y and E_z . The outer electric field is directed along the OX-axis. In the considered case, the author obtains from (1) :

$$(3) \quad E_y = \frac{3m}{4\pi e^2} \frac{-k_1 \Omega_z + k_2 \Omega_x \Omega_y}{k_1 (I_{3,1}^2 + \Omega^2 I_{3,2}^2)} I_{3,2} j_x$$

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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

$$(4) \quad E_z = \frac{3m}{4\pi e^2} \frac{k_1 \Omega_y + k_2 \Omega_x \Omega_z}{k_1(I_{3,1}^2 + \Omega^2 I_{3,2}^2)} I_{3,2} j_x$$

where $k_1 = I_{3,2}(I_{3,1} + \Omega^2 I_{3,3}) = I_{3,2} \int_0^\infty \tau p^3 \frac{df_0}{dp} dp$, $k_2 = I_{3,3} I_{3,1} - I_{3,2}^2$.

If f_0 is of Maxwell type and $l = \tau v = l_0$, where l_0 does not depend on p then from (3), (4) it results

$$(9) E_y = R_0 \frac{\frac{R_1 H_z - \frac{2}{\sqrt{\pi}} \frac{e l_0 H_x H_y}{\sqrt{2mc^2 kT}} (R_2 R_4 - \frac{\pi}{4} R_1^2)}}{R_4^2 + \frac{\tilde{\epsilon}}{4} \alpha R_1^2} j_x$$

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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

$$(10) \quad E_z = - R_0 \frac{R_1 H_y - \frac{2}{\sqrt{\pi}} \frac{e l_0 H_x H_z}{\sqrt{2mc^2 kT}} \left(R_2 R_4 - \frac{\tilde{\mu}}{4} R_1^2 \right)}{R_4^2 + \frac{\tilde{\mu}}{4} \alpha R_1^2} j_x ,$$

where

$$R_1 = 1 - \frac{2}{\sqrt{\pi}} \alpha I , \quad R_2 = 1 - \alpha e^\alpha G(\alpha) , \quad R_4 = 1 - \alpha + \alpha^2 e^\alpha G(\alpha) ,$$

$$R_0 = \frac{8 \tilde{\mu}}{3} / e n_0 c , \quad \alpha = \frac{(e l_0 H)^2}{2mc^2 kT} , \quad n_0 \text{ is the concentration of the current carriers, } c \text{ is the velocity of light}$$

$$I = \int_0^\infty \frac{x^{1/2} e^{-x}}{\alpha + x} dx , \quad G(\alpha) = \int_\alpha^\infty \frac{e^{-x}}{x} dx .$$

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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

Table 1 shows the dependence of the Hall-coefficient on the magnetic field, i.e. $R = R(\alpha)$, where here it was assumed that $H_x = H_y = H_z = \frac{H}{\sqrt{3}}$.

Table 1

α	I	R_1	R_2	R_4	R/R_o	
					for E_y	for E_z
0.04	1.3200	0.9390	0.8490	0.96446	0.9630	0.998
0.10	0.9660	0.8880	0.7980	0.92000	0.9520	1.004
1.00	0.4380	0.5060	0.4037	0.59630	0.8630	0.983
3.00	0.2030	0.3130	0.2135	0.35960	0.8470	0.893
10.00	0.0744	0.1406	0.0844	0.15600	0.8104	0.756
15.00	0.0528	0.1060	0.0590	0.11200	0.7860	0.710

Table 2 shows the dependence of the Hall-coefficient of H_x (and α_x , resp.),
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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

where $H_y = H_z$.

$$R_2' = \frac{2}{\gamma \tau} (R_2 R_4 - \frac{\pi}{4} R_1^2) .$$

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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

Table 2

α	$\sqrt{\alpha_x}$	R_1/R_0	R_2/R_0	R/R_0	α	$\sqrt{\alpha_x}$	R_1/R_0	R_2/R_0	R/R_0
0.04	0	0.98	0	0.980	3	0	0.87	0	0.870
	0.05	0.98	-0.007	0.973		0.3	0.87	-0.008	0.862
	0.10	0.98	-0.015	0.965		0.7	0.87	-0.017	0.853
	0.15	0.98	-0.022	0.958		1.0	0.87	-0.024	0.846
	0.20	0.98	-0.030	0.950		1.3	0.87	-0.031	0.839
0.1	0	0.978	0	0.9780	10	0	0.783	0	0.783
	0.05	0.978	-0.0075	0.9705		1	0.783	0.015	0.798
	0.10	0.978	-0.0150	0.9680		2	0.783	0.029	0.812
	0.20	0.978	-0.0290	0.9490		3	0.783	0.044	0.827
	0.30	0.978	-0.0435	0.9345					
1.0	0	0.920	0	0.9200	15	0	0.732	0	0.732
	0.1	0.920	-0.0052	0.9148		1	0.732	0.017	0.749
	0.2	0.920	-0.0104	0.9096		2	0.732	0.035	0.767
	0.4	0.920	-0.0208	0.8990		3	0.732	0.052	0.784
	0.6	0.920	-0.0313	0.8890		4	0.732	0.069	0.801
	0.8	0.920	-0.0416	0.8780					
	1.0	0.920	-0.0520	0.8680					

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Hall-Effect in Semiconductors in an Arbitrarily Directed Magnetic Field

There are 4 Soviet references.

ASSOCIATION: Tashkentskiy gosuniversitet imeni V.I. Lenina
(Tashkent State University imeni V.I. Lenin)

SUBMITTED: April 23, 1960

Card 8/8

ARUTYUNOVA, L.G.; TESHABAYEV, K.A.

Effect of various graft-stock on the heredity in the hybrid progeny
of cotton. Agrobiologija no.1:26-31 Ja-F '62. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut selektsii i semenovodstva
khlopchatnika, g. Tashkent.
(Cotton breeding) (Grafting)

AZIMOV, S.A.; TESHABAYEV, K.T.; CHERNOVA, L.P.; CHERNOV, G.M.; CHUDAKOV, V.M.

Angular distribution of shower particles in nuclear interactions between fast nucleons and heavy nuclei in photographic emulsions.
Zhur. ekspl. i teor. fiz. 39 no. 6:1534-1539 D '60. (MIRA 14:1)

1. Fiziko-tehnicheskiy institut Akademii nauk Uzberkskoy SSR i
Sredneaziatskiy gosudarstvennyy universitet.
(Cosmic rays) (Nuclear reactions)

88424

S/056/60/039/006/009/063
B006/B056*23.5000*

AUTHORS:

Azimov, S. A., Teshabayev, K.T., Chernova, L. P.,
Chernov, G. M., Chudakov, V. M.

TITLE:

Angular Distribution of Shower Particles in Nuclear Interactions Between Fast Nucleons and Heavy Nuclei of Photographic Emulsions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 6(12), pp. 1534-1539TEXT: The angular distributions of secondary particles were investigated in 70 interaction events of singly-charged or neutral cosmic particles with heavy photoemulsion nuclei. These showers were found during the evaluation of Ilford-G-5 plates, which had been exposed in the stratosphere in 1955, in the course of the Italian expedition. 55 of them had been caused by singly-charged, and 15 by neutral particles. The energies of the primary particles could be determined as amounting to $10^{10} - 10^{12}$ ev; the showers consisted of more than eight strongly ionizing particles. Symmetry investigations of the angular distributions led to the result that symmetry

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Angular Distribution of Shower Particles in
Nuclear Interactions Between Fast Nucleons S/056/60/039/006/009/063
and Heavy Nuclei of Photographic Emulsions B006/B056

exists with respect to the angle $\pi/2$ in a system of reference, in which for half of all particles $\theta^* > \pi/2$ (s-system); the conversion of θ measured in the laboratory system is carried out according to the equation

$\gamma_c \tan \theta = \tan (\theta^*/2)$, where γ_c is the Lorentz factor. γ_c is determined from $(\gamma_c)_1 = \cot \theta_{1/2}$ and $\log (\gamma_c)_2 = -\log \tan \theta$, $\gamma_c = \bar{\gamma}_c = \frac{1}{2}[(\gamma_c)_1 + (\gamma_c)_2]$.

Fig. 1 shows the angular distribution in the s-system for secondary shower particles, caused by charged particles a) for $\gamma_c < 3$ (31 showers of 55), and b) for $\gamma_c > 3$. Further, the dispersions for the angular distributions were investigated along with the interrelation between γ_c and the number of the relativistic tracks n_s . ($n_s \geq 5$). The mean anisotropy of the angular distribution of the particles in the c-system may quantitatively be characterized by:

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Angular Distribution of Shower Particles in Nuclear Interactions Between Fast Nucleons and Heavy Nuclei of Photographic Emulsions

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B006/B056

$$\sigma = \left[\sum_{i=1}^N \sum_{j=1}^{n_i} \left[\log \tan \theta_{ij} - \overline{\log \tan \theta}_i \right]^2 \middle/ \sum_{i=1}^N (n_i - 1) \right]^{1/2},$$

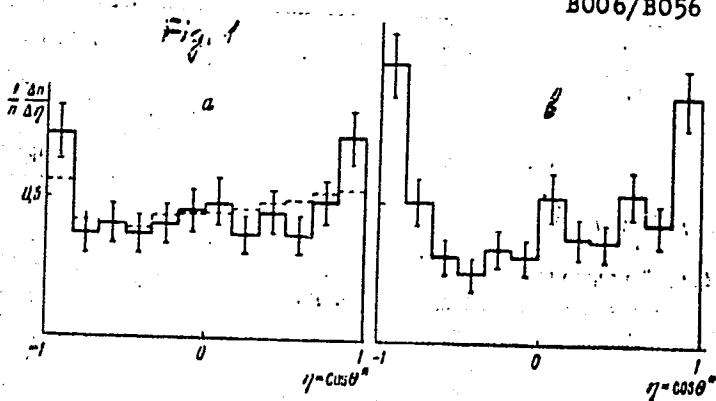
where n_i is the number of charged secondary particles in the i -th shower with $\theta < \pi/2$, N is the number of showers, σ is between 0.44 and 0.55. The authors thank G. B. Zhdanov for discussions.. Zh. S. Takibayev is mentioned. There are 4 figures, 1 table, and 8 references: 5 Soviet, 2 US, and 1 Italian

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk Uzbekskoy SSR (Institute of Physics and Technology of the Academy of Sciences of the Uzbekskaya SSR). Sredneaziatskiy gosudarstvennyy universitet ((Soviet) Central Asia State University)

SUBMITTED: June 27, 1960

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88424

S/056/60/039/006/009/063
B006/B056

Text to Fig. 1: a) $\gamma_c < 3$; b) $\gamma_c > 3$; n - total number of secondary particles.

Card 4/4

TESHABAYEV, M.

Field edition of topographic maps. Izv. Uzb. fil. Geog. ob-va 2:
150-154 '56. (MIRA 1:4)
(Soviet Central Asia—Maps, Topographic)

TESHABAYEV, M.

Cartographic and geodesic works of al-Khuwarazmi and al-Biruni.
Izv.Uzb.fil.geog.ob-va no.3:181-186 '57. (MIRA 11:4)
(Muhammad Ibn Musa, Al-Khuwarazmi, Fl.825-833)
(Al-Biruni, 973 - 1048)

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CIA-RDP86-00513R001755510002-5

VOLKOV, A.N., inzh.; LYADSKIY, V.B., kand. tekhn. nauk; TESHAYEV, S.T., inzh.

Austenitic manganese cast iron. Lit. proizv. no.1:8-9 Ja '66.
(MIRA 19:1)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755510002-5"

TESHCHUK, A.; KOZLOVSKIY, S., inzhener (TsPKB-2).

Progressive techniques and the mechanization of hull maintenance and dockyard repairs. Mor. flot 16 no. 7:23-26 Jl '56. (MLRA 9:11)

1. Glavnuyy inzhener Glavmorproma (for Teshchuk).
(Ships--Maintenance and repair)

TESHCHUK, A.; KOZLOVSKIY, S.

Progressive techniques and the mechanization of hull maintenance and
deckyard repairs (conclusion). Mor.flot 16 no.8:23-25 Ag '56.
(MIRA 9:10)

1.Glavnyy inzhener Glavmorproma (for Teshchuk).2.Inzhener TsPKB-2
(for Kozlovskiy).
(Hulls (Naval architecture)) (Ships--Maintenance and repair)

TESHCHUK, A.YE.

MOROZOV, Mikhail Yakovlevich; SOKOLOV, Leonid Ivanovich; TESHCHUK, A.Ye.,
redaktor; MEL'YEV, A.S., redaktor izdatel'stva; TIKHONOVA, Ye.A.,
tekhnicheskiy redaktor

[Repair of ship equipment] Remont sudovykh ustroistv. Moskva, Izd-vo
"Morskoy transport," 1957. 211 p.
(Ships--Maintenance and repair)
(MLRA 10:9)

TESHCHNIKOV, N. F.

"Synthetic Gasoline from Natural Gas,"
Kislerod, No. 2, 1944. Engr.

TESHEYEV, Saydulla, plavil'shchik, Geroy Sotsialisticheskogo Truda
Share your knowledge with others. Sov. profsoiuzy 19 no.22:
(MIRA 17:1)
4-6 D '63.
1. Yuzhnyy gorno-metallurgicheskiy kombinat imeni Frunze,
Kirgizskaya SSR.

TESIC, D.

"(Radiology)" Inst. for Radiogenology & physical therapy, Vet. Fac., U. of Beograd.

Vet. Glasnik 7 : 412-415, July 1953

TESEL'KO, I.T., inzh. (g.Kiyev)

Automatic control in stone crushing plants. Put' put.khoz.
(MIRA 12:12)
no.9:40-42 S '59.
(Stone, Crushed) (Automatic control)

YUGOSLAVIA / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6367

Author : Teshich, Branislava

Inst : Not given

Title : Blooming, Pollination and Ripening of Fruits
of Peanuts

Orig Pub : Pol'oprivreda, 1957, 5, No 7-8, 69-74

Abstract : No abstract given

Card 1/1

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TESHICH, Zh.P.

Rational classification of actinomycetes. Mikrobiologija 29
no. 4:617-622 Jl-Ag '60. (MIRA 13:10)

1. Institut mikrobiologii sel'skokhozyaystvennogo fakul'teta
Belgradskogo universiteta Zemun, Jugoslaviya.
(ACTINOMYCES) (BACTERIOLOGY—CLASSIFICATION)

YUGOSLAVIA / Cultivated Plants. Fruit Trees. Small M
Fruit Plants. Nut Trees. Tea.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 25035

Author : Teshih, M. B.

Inst : Not given

Title : An Experiment of Winter Grafting on Fruit
Trees

Orig Pub : Pol'oprivreda, 1957, 5, No 7-8, 50-58

Abstract : In 1954, the Institute of Horticulture in Chachka (Yugoslavia) conducted an experiment on grafting the 4-year-old apples, Ontario and Canadian, on the wildling EM 16. The grafting was conducted by 4 groups: pruning of the crown; pruning of the branches slightly above the 17-19th buds; considerable pruning, with shortening of the main trunk

Card 1/2

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YUGOSLAVIA / Cultivated Plants. Fruit Trees. Small M
Fruit Plants. Nut Trees. Tea.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 25035

and the summer growth gain above the 11-13th buds, and shortening of the trunk and the summer growth gain above the 5-7th buds. In the following 2 years, pruning of the crown only was conducted, the latter two groups producing by far the largest accretion of the summer shoots. Thickening of the trunks was the same. A smaller shortening of the extension shoot and of the summer growth gain produced good harvest. -- Ye. A. Parshina

Card 2/2

YUGOSLAVIA

GOLOSIN, R., and TESIC, D., of the Veterinary Institute (Veterinarski Institut) in Novi Sad and the Pharmacological Institute (Institut za Farmakologiju) of the Faculty of Veterinary Medicine (Veterinarski Fakultet) in Belgrade.

"The Application of Coccidiostats for Purposes of Preventing the Outbreak of Acute Intestinal Coccidiosis in Wild Rabbits in the Course of Transportation."

Belgrade, Veterinarski Glasnik, Vol 17, No 9, 1963, pp 821-824.

Abstract: The Hunters' Alliance of the Vojvodina has been exporting live rabbits to Italy and France since 1958. The total number thus far exported has been 64,750. Losses en route from Novi Sad have averaged 5 percent over the five years. Parasitological and bacteriological studies in the Novi Sad Veterinary Institute of 257 rabbits showed that 91.6 percent were infected with various types of coccidiosis. Findings of dead rabbits (25) showed that parasites had been the cause of death in 84 percent of the cases, of which 76.2 percent were cases of coccidiosis, of which 81.3 percent were cases of acute intestinal coccidiosis. Statistical data are quoted to show that losses are heavier in years with heavier precipitation and are more frequent among rabbits shipped to France than those shipped to Italy. The author in conclusion discusses the need for cheap anti-coccidiosis devices which will not interfere with the transportation procedure. Three tables, one US and two Yugoslav references.

TESIC, D.

SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: None given

Affiliation: Instituto for Pharmacology (Institut za Farmakologiju).
Presumed: Veterinary Faculty, University of Belgrade

Source: Belgrade, Acta Veterinaria, Vol 11, No 1, 1961, pp 3-11.

Data: "Comparative Investigation of the Effect of Penicillin
and Dihydrostreptozycin on Intestine in Situ and in Vitro."

Co-Author:

MIHAJLOVIC, L., Academic Degrees not given, Institute
for Pharmacology. Presumed: Veterinary Faculty,
University of Belgrade.

15 Dec 02
Surname (in caps); Given Names

Country: Yugoslavia

Academic Degrees: None given.

Affiliation: Institute for Histology and Embryology (Institut za Histo-
logiju i Embriologiju) Presumed: Veterinary Faculty, University
of Belgrade.

Source: Belgrade, Acta Veterinaria, Vol 11, No 1, 1961, pp 13-21.

Title: "The Influence of Chlorpromazine on Thyroidea in the Rat."

Co-Authors:

TESIC, D. Academic degrees not given, Institute for Pharmacology
(Institut za Farmakologiju). Presumed: Veterinary Faculty,
University of Belgrade.

JOVANOVIC, M., Academic degrees not given, Institute for Physiology
(Institut za Fiziologiju). Presumed: Veterinary faculty,
University of Belgrade.

TERZIC, D.
Subject (In Caplts); Given Name

Country: Yugoslavia

Academic Degrees: None given.

Affiliation: Institute for Pharmacology (Institut za Farmakologiju). Presumed:
Veterinary Faculty, University of Belgrade

Source: Belgrade, Acta Veterinaria, Vol 11, No 1, 1961, pp 41-43.

Data: "The Effect of Colchicine on the Serum Concentration of
Potassium and Sodium and Their Renal Excretion in the Rat."

Co-Authors:

TERZIC, Lj., No academic degrees given, Institute for
Pharmacology (Institut za Farmakologiju)

MIHAJLOVIC, L., No academic degrees given, Institute
for Pharmacology (Institut za Farmakologiju)

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YUGOSLAVIA

TESIC, D. and STOJANOVIC, M.S. [Affiliation not given.]

"Effect of Calciferol on the Hypotensive Action of Neomycin."

Belgrade, Arhiv za farmaciju, Vol 12, No 6, 1963; pp 535-537.

Abstract : Since calcemia allegedly decreases oto- and nephrotoxicity of neomycin, calciferol may increase tolerance to the antibiotic. Authors' studies reveal that in dogs, i.m. calciferol or dihydrotachisterol both neutralize the hypotensive effect of 32 mg./Kg. neomycin i.v. (to below 19% of average BP fall obtained in controls). Three kymograms; 1 Czech, 1 Yugoslav and 8 Western references.

1/1

- 6 -

TESIC, M.

"Black Currents", P. 32, (POLJOPRIVREDNA, Vol. 2, No. 3, March 1954,
Belgrade, Yugoslavia)

SG: Monthly List of East European Accessions (FEAL), LC, Vol. 4, No. 3,
March 1955, Uncl.

TESIC, M.

Concepts of the hydrography of Karst. p. 85.
(GODISNJAK, Yugoslavia, 1955 (published 1956.)

SO: Monthly List of East European Accessions (EEAL LC, Vol. 6, no. 7, July 1957. Uncl.

TESIC, M.

International Geophysical Year. p. 135.
(GODISNJAK, Yugoslavia, 1955 (published 1956.)

SO: Monthly List of East European Accessions(EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.